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| APPLICATION NO.       | FILING DATE                    | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------|--------------------------------|----------------------|---------------------|------------------|
| 10/719,682            | 11/21/2003                     | Chuang He            | 2639/A96 1306 ·     |                  |
| 2.0.                  | 590 04/11/2007<br>SUNSTEIN LLP |                      | EXAMINER            |                  |
| 125 SUMMER            | STREET                         |                      | VO, HUYEN X         |                  |
| BOSTON, MA 02110-1618 |                                |                      | ART UNIT            | PAPER NUMBER     |
|                       |                                |                      | 2626                |                  |
|                       |                                |                      |                     | <del></del>      |
| SHORTENED STATUTOR    | Y PERIOD OF RESPONSE           | MAIL DATE            | DELIVERY MODE       |                  |
| 3 MO                  | NTHS                           | 04/11/2007           | PAPER               |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|  | Application No.  | Applicant(s)  |  |  |  |  |
|--|--|---|--|--|--|--|
|  | 10/719,682   | HE ET AL.   |  |  |  |  |
| Office Action Summary  | Examiner   | Art Unit  |  |  |  |  |
|  | Huyen X. Vo  | 2626  |  |  |  |  |
| The MAILING DATE of this communication appreciation for Reply  | The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply   |   |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION  16(a). In no event, however, may a reply be tim  fill apply and will expire SIX (6) MONTHS from  cause the application to become ABANDONE | L. lely filed the mailing date of this communication. |  |  |  |  |
| Status   |  |   |  |  |  |  |
| 1) Responsive to communication(s) filed on 21 No   | ovember 2003.  |   |  |  |  |  |
| 2a) This action is <b>FINAL</b> 2b) ☐ This   |  |   |  |  |  |  |
| 3) Since this application is in condition for allowan  | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is  |   |  |  |  |  |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  |  |   |  |  |  |  |
| Disposition of Claims  |  |   |  |  |  |  |
| 4)⊠ Claim(s) <u>1-5</u> is/are pending in the application.   |  |   |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.   |  |   |  |  |  |  |
| 5) Claim(s) is/are allowed.  |  |   |  |  |  |  |
| 6) Claim(s) is/are rejected.   |  |   |  |  |  |  |
| 7) Claim(s) is/are objected to:  |  |   |  |  |  |  |
| 8) Claim(s) <u>1-5</u> are subject to restriction and/or election requirement.   |  |   |  |  |  |  |
| Application Papers   |  |   |  |  |  |  |
| 9) The specification is objected to by the Examiner  | r.   |   |  |  |  |  |
| 10)⊠ The drawing(s) filed on <u>21 November 2003</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.  |  |   |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |  |   |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).   |  |   |  |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.   |  |   |  |  |  |  |
| Priority under 35 U.S.C. § 119   |  |   |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:   |  |   |  |  |  |  |
| <ol> <li>Certified copies of the priority documents</li> </ol>   | 1. Certified copies of the priority documents have been received.  |   |  |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No   |  |   |  |  |  |  |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage  |  |   |  |  |  |  |
| application from the International Bureau (PCT Rule 17.2(a)).  |  |   |  |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.   |  |   |  |  |  |  |
|  |  |   |  |  |  |  |
|  |  |   |  |  |  |  |
| Attachment(s)  | ,  | (272.448)   |  |  |  |  |
| 1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  Paper No(s)/Mail Date  |  |   |  |  |  |  |
| 3) Information Disclosure Statement(s) (PTO/SB/08)  5) Notice of Informal Patent Application   |  |   |  |  |  |  |
| Paper No(s)/Mail Date 1 sheet. 6) Other:   |  |   |  |  |  |  |

## **DETAILED ACTION**

## Election/Restrictions

- 1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-3, drawn to a method of continuous speech recognition system for discriminatively training hidden Markov models using mapping technique, classified in class 704, subclass 235.
  - II. Claim 4, drawn to a method of continuous speech recognition system for discriminatively training hidden Markov models using gradient adjustment technique, classified in class 704, subclass 244.
  - III. Claim 5, drawn to a method of continuous speech recognition system for discriminatively training hidden Markov models by determining correctness of a hypothesized word, classified in class 704, subclass 239.
- 2. Inventions I, II, and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case, subcombination I has separate utility such as discriminatively training hidden Markov models using mapping. Subcombination II has separate utility such as discriminatively training hidden Markov models using gradient adjustment technique. Subcombination III has separate utility such as discriminatively training hidden Markov models by determining correctness of a hypothesized word See MPEP § 806.05(d).

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The examiner has required restriction between subcombinations usable together. Where applicant elects a subcombination and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a).

Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

## Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huyen X. Vo whose telephone number is 571-272-7631. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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4/5/2007